

ABSTRACT

The present invention provided a method for measuring a halogen gas and/or a hydrofluorocarbon for the purpose of controlling the concentration of the halogen gas and/or the hydrofluorocarbon, in a plant producing a halogen compound or a perfluorocarbon, at a predetermined concentration level quickly, easily, and precisely for the control. The present invention provides also a measurement apparatus for the above measurement which has a compact structure, and in which the parts are exchangeable quickly and readily. The present invention provides further a process for producing a halogen compound or a perfluorocarbon employing the measurement method and the measurement apparatus.

In particular, the present invention intends to provide a method for measuring safely and quickly a hydrofluorocarbon concentration in a mixed gas stream in a process of producing a perfluorocarbon by direct fluorination reaction of a hydrofluorocarbon and F_2 .